

## Application to CPC for 2011 Grant—Continuation of the Wheeler Farm and Mill Complex

The grant request described herein would implement Phase III of the Trail Through Time series. The request is pertinent to Historic Preservation; **one** element **is** pertinent to Open Space and Recreation.

**Narrative:** The *Trail Through Time* is a bi-cultural heritage trail, winding within the North Acton conservation lands, that provides access to Colonial and Native American sites, where stone remains still exist. The Trail follows existing Land Stewards trails. We are serially restoring stonework remains at these sites, together with landscaping enhancements and installation of informational panels.

This grant request would continue the restoration work begun under Phase II—restoration of remains of Thomas Wheeler, Jr.'s 1730s dry cattle farm—by extending the process to the stonework of the grist mill foundation, two associated foundations, portions of the raceway, and the two sluices. **(Remove: and the housing for the overshot wheel.)**

Reconstruction of the sluice gate that controlled the water flow to the wheel will be undertaken later when more information about the mill's original configuration is understood, and remediation of the dam will provide control of the flow into the raceway. This gate, now replaced by two concrete blocks, was likely destroyed by the Flood of 1936 followed by the Hurricane of 1938, as evidenced by the field of tumbled field stones randomly lying in the sluiceway below the gate's location. Flooding during the summer of 2010 removed additional stones from the mill foundation.

We propose to demolish the existing red building resting above the mill foundation and replace it **(Add: ) with a platform with railing, resting on sonotubes installed within the masonry frame of the existing foundation.** The present derelict building, erected in the 1940s as a hunting/drinking lodge by Drop Kick Murphy (pers. com. from Bill Klauer), has rotting siding, is encumbered with debris and hanging fiber-glass insulation within, and has recently been destabilized by the erosion of the leading corner of the mill foundation. It is now structurally unsafe.

The proposed **(Add: ) platform and railing will be designed so as to provide an observation deck for viewing** the extensive and impressive stonework built with human and animal labor, as well as providing a suitable location for mounting the informational panels. **(Remove: ) The structure will be open sided, handicapped accessible, of timber-frame design, and resemble in shape a period mill.** This platform will cover the original mill foundation but not rest on it, being supported from within this foundation by sonotubes.

**(Add: ) This deck will be constructed so that, if in future a decision is made to implement a replica of a period mill complete with working overshot wheel and water delivery chute, such a structure could be built on this deck/floor. More research has to be done before such a building can be designed. The dam remediation project must be further defined to ensure a controlled**

water delivery down the raceway. And the masonry that housed the overshot wheel will have to be better understood and reconstructed.

The informational panels will provide: 1) a map of the entire TTT, showing both the Colonial loop and the Indian loop; 2) background history of the area surrounding the site, detailing the acquisition of the land from John Tahattawan, son of the renowned sachem; 3) the relationship between this settlement—known as Concord Village or the New Grants—and the local Nashoba Indians residing in the nearby Nashoba Praying Village, as well as with Concord Towne via the Old Road to Concord; and 4) discussion of the structures located on the landscape sacred to the Native Americans on the south side of Nashoba Brook, into Spring Hill conservation land, and the Robbins Development Co. land due to come to the Town.

Because disturbance of the soil within the mill foundation will be necessary to install sonotubes, the local Historic Commission requires an archaeological survey of 16 test pits to be completed there. Further historical research will be carried out, including deed research at the county level, to further determine the succession of ownership, particularly of the two mills. An archaeological GPS surface survey would continue work begun under the Field School of 2008. Such a survey should increase our understanding of the farm and mill complex, including the location of the second (saw) mill, for which a sluice exists. We hope that further research will provide more solid evidence for the location of the Old Road to Concord, one terminus of which is thought to lie at the south side of the footbridge.

The archaeological survey, together with exposure of material lying within the foundation, currently inaccessible, may inform not only the possible future design of a pavilion, but also the manner in which the original overshot wheel and water delivery system were configured. Additional historical documentation, if such can be found, may allow us in the future to reconstruct a working overshot wheel, which would generate a small amount of hydroelectric power to be fed into the local grid.

The restoration of the raceway, the two sluices, and the three foundations will be conducted in anticipation of this possibility. The masons have deduced where the wheel stood and believe that they could reconstruct the water delivery system if such an adjunct to this current project appears feasible. However, we plan to search for an outside funding source for such an extension of the current project in the future.

Finally, additional tree removal and landscaping will be undertaken to open up vistas that allow more comprehensive appreciation of the extent of the stonework, and to establish a park-like ambience in a natural landscape with handicapped accessibility, benches, and picnic tables. This work will be an extension of the work already completed within the scope of Phase II. Plans for the extension of the handicapped accessible pathways, begun under Phase II, are sketchy at this time owing to the unknown character of the terrain surrounding the sluices and foundations until removal of trees and other vegetation is completed. Such extension can be carried out over time and undertaken with volunteer labor as has been done under Phase II.

An additional issue has been raised since beginning the plan for this proposal. Town officials, together with interested parties including myself, met in late October with engineers from Tighe and Bond, the consulting firm hired by the State to evaluate the condition of its dams. The Robbins Mill dam (originally the Thomas Wheeler dam) evaluation is complete, and remediation has been discussed. The engineers will plan the restoration of the historic dam to reduce and control water entering the raceway, thereby ensuring protection for the restored masonry at the mill site. Restoration of the dam itself will be carried out to preserve most of the original historic stonework there. Until the dam remediation is complete, the concrete sluice gate at the mill's foundation must be (Remove:) at least partially removed to prevent further erosion during flood stages.

More difficult to accomplish in a cost effective manner is the tree removal operation. Because trees will be removed in association with the dam remediation project, and because it will be cost effective to bring in the necessary equipment only once, and because it would be difficult to determine which removed trees should be charged to the dam remediation process and which to the Wheeler Restoration process, Tom Tidman has agreed to have the Town Crew take down all trees that will adversely impact the masonry to be restored.

(Remove:) Some lesser trees can be removed by the Town Crew. Other trees will require removal by bucket. Postponing some Phase III tree clearing until it can be done in conjunction with tree removal associated with the dam remediation, would result in a more cost effective process. However, trees growing within the masonry restoration zone, must be removed before masonry reconstruction can begin. Some bucket work will be required.

**Community Benefit:** The Wheeler Farm and Mill Complex is located where the clearest evidence still remains of the interaction between two cultures that existed concurrently and, to some extent, side by side. The Nashoba Praying Village to the north and Concord Towne to the south touched or overlapped here. This was the destination of traffic from Concord Towne to Concord Village—or the New Grants, as the settlement at this location came to be called. The land was conveyed by John Tahattawan and other Native American signatories to Thomas Wheeler, Jr. of Concord Towne via the General Court and Concord Towne. Soon after the settlement was begun, Acton was incorporated as a separate town, making this property the first in North Acton that was deeded to a European directly from the Native Americans.

The 'droving corridor,' a wide, double-walled, serpentine corridor along which cows were driven from their pens into pasture, was also the 'Main Street' and followed an earlier Indian trail along the north side of the Nashoba Brook. It is very likely that the extensive stonework at this site was not constructed by Europeans alone; the labor of Indians would have been involved.

The undeveloped land on the south side of Nashoba Brook and directly across from this site, through which the (presumed) Old Road to Concord ran, remains as a small portion of what originally was a slightly-elevated landscape sacred to the Native Americans. This swath of land ran from Lincoln in the south to Westford and Littleton in the north. Today, there remain, in

undisturbed areas, numerous stone rings or piles (that are *not* field-clearing piles), a turtle effigy, walls with significant astronomical alignments, and portals to the underworld.

By clearing brush and culling dead and diseased trees throughout the area in order to leave a high, open, and shady canopy, we intend to create an historic park that will serve North Acton somewhat as the botanical Arboretum serves Acton Center. The accessible pathways through the site, together with the exposed stonework and informational panels, will encourage visitors and hikers alike to understand and appreciate some of Acton's less well-known history. Coaxing more people into the natural and historical environment raises consciousness about resources Acton possesses and leads to increased visitation and awareness of our unique and priceless legacy. It will naturally attract more people to it as a destination for relaxation, passive recreation, and educational opportunities for school children and scholars.

As the Trail is extended in the future into the 'Indian territory,' and the modest structures there are cleared and described with remote informational panels, the entire area should become a showplace of concurrent pre-historic and early Colonial cultural overlap.

**Project plan and schedule:** Four threads of tasks within the overall project overlap and interleave to some degree. Some require completion of others first.

<u>Year</u>	<u>Masonry</u>	<u>Platform</u>	<u>Research</u>	<u>Environment</u>
2011	Raceway spring	Shack demo July	Site inventory summer	Tree work
	2 Sluices summer		Test pits August	French drain fall
			Historical research all year	Wildflower garden after French drain
2012	3 Foundations spr., sum.	Observation platform design complete	Archaeological GPS survey	Perennials & bulbs continuing
		Sonotubes July	Panel texts ongoing	
2013		Platform construction summer	Platform panels fabricated summer	Grading and seeding when equipment is off site
		Panel installation Fall		

## 2014, 2015

- A.) Concurrent with this schedule and possibly extending to 2015, we expect to extend the handicapped accessible pathways completed under Phase II. These, ideally, would bridge the sluices and wind through the restored foundations. So far, all accessible trails have been constructed by volunteers—Eagle Scouts and community service youth. We intend to follow this practice. Until the masonry reconstruction and tree work are completed, these extensions cannot begin. To date, the only expense associated with such work has been the aggregate (stone dust), which is not a significant cost. However, the extension of the accessible paths, **if bridges/boardwalks are required**, will entail lumber. No estimates, or even the feasibility of these accessible pathway extensions, can be supplied at this time.
- B.) The fabrication and installation of the 4 panels for the **observation platform** have been included in the schedule above. However, no schedule for the remaining 3 remote panels is realistic at this time. One will be placed at the Wheeler Farm site, one at the site of Native American stone piles along the yellow trail on the south side of the Nashoba Brook. **(Replace:) The third panel will either be placed at the site of the second mill (saw) if that site can be ascertained, or at the site of the supposed chamber roofslab quarry, when the land on which that quarry is located comes to the Town. (Remove:) and the third, at the supposed location of the second (saw) mill near the Old Road to Concord. These can only be fabricated and installed when the appropriate research has been completed.** All will be done within the 5 year limit of the grant.

The high priority for the installation of these three is the Indian stone pile site. Because this overall project is a *bi-cultural* trail, it is imperative to enhance at least one Indian site soonest.

**Cost Estimates:** These cost estimates have been obtained from vendors either well-known to the Town, or known to me as experienced and knowledgeable in their separate areas of expertise. I plan to recruit volunteers for all appropriate work. Volunteer work on Phase II is currently several hundred hours. This proposal is costlier than the prior two and will be the only proposal presented by me at this level.

The proposed Phase III project has been officially approved by the local Historic Commission. It has the support of the Wheeler Lane neighbors, Doug Halley and Tom Tidman, with whom I regularly confer, as well as the Land Stewards.

**(Remove:)** As encouraged by CPC in September, I am submitting costs for the full complement of tasks envisioned within Phase III which can reasonably be carried out within a three year period. Please note that two items in the list below could be funded from Open Space and Recreation, if Historic Preservation is oversubscribed in this cycle.

Demolition	Shack Concrete blocks	\$6.5K \$2.75K	HP
Historical research		\$3K	HP
Archaeology:	Test pits Comm. arch. project Site inventory	\$2K \$3.35K \$ .3K	HP HP HP
Observation platform:	Platform, sonos , railings	\$20K	HP
Masonry:	Raceway Upper sluice Lower sluice 3 foundations	\$25K	HP
Tree work		\$0K	
Informational panels:	4 on platform 3 in remote locations	\$6K	OSR
(Remove:) Landscaping:	seed, trap rock, stone dust	\$1K	OSR
<b>Subtotals</b>	<u>Historic Preservation</u>	<b>\$60.9K</b>	
	<u>Open Space &amp; Rec.</u>	<b>\$6.K</b>	
<b>Total</b>		<b>\$66.9K</b>	

(Remove:) The estimate for the pavilion includes all structural materials, delivery, decking, roof planking, and installation. Sonotubes, shingling, and rails are not included. My plan is to reduce the cost of the estimated structural components by simplifying the design on which this estimate is based, and pick up enough excess to cover the cost of the sonotubes and shingling. It did not seem prudent to seek an estimate for these latter items while the overall design is still undecided

**Phase IV:** Possibly relevant to this cost analysis is this projection into the future:

The final phase of the so-far planned TTT—Phase IV—will focus on the ‘Indian loop’. Much of this trail will be new (under Land Stewards’ maintenance and on land coming to the Town from the Robbins Development Co.) The sites there have been reviewed by me with knowledgeable colleagues from Carlisle. A tentative route for the Trail there has been scoped out, and will

access the area of greatest density and variety of stone structures thought to be Native American. This Indian loop would begin at the Robbins Mill Pond dam, cross Boy Scout land, include the probable quarry site for the Chamber's roofslabs, traverse the area of greatest density of Native American structures, follow part of the Old Road to Concord and tie back into the Colonial loop either along that road, or further west between the Nashoba Brook parcel and the Spring Hill parcel.

Most of the expense associated with Phase IV will be for remote informational panels and a kiosk, similar to the Pencil Factory kiosk, located at the center of the densest concentration of these structures and close to a turtle effigy.

**Vendors:** All quotes are attached

Demolition

Onyx Transportation  
18 Wetherbee Street  
Acton

Background research

Community archaeological project  
Kimberly Connors/Hughes  
Archaeology Outreach  
100 Main Street  
Acton

Archaeology

Craig Chartier (Archaeologist for Chamber Survey)  
Plymouth Archaeological Rediscovery Project (Director)  
[www.plymoutharch.com](http://www.plymoutharch.com)

Site inventory                      ???

Observation platform: possibly, now not clear

Ben Brungraber, Chief engineer and owner  
Fire Tower Engineered Timber  
60 Valley Street, Unit #1  
Providence RI 02909

Masonry

David Stewart-Smith PhD  
DunRaven Masonry  
Webster NH  
603 648-2118

(Remove):Tree work (1)  
Axe Brothers

Tree work (2)

## Matt's Tree Service

### Informational panels

Lynn Horsky (chamber panel, TTT trail markers, LSCom guidebooks, and other reports)

Process

816 Depot Road

Boxborough MA 01719

### Tree Work and landscaping

Tom Tidman, Natural Resources Director, Town of Acton

Town Crew

Volunteers